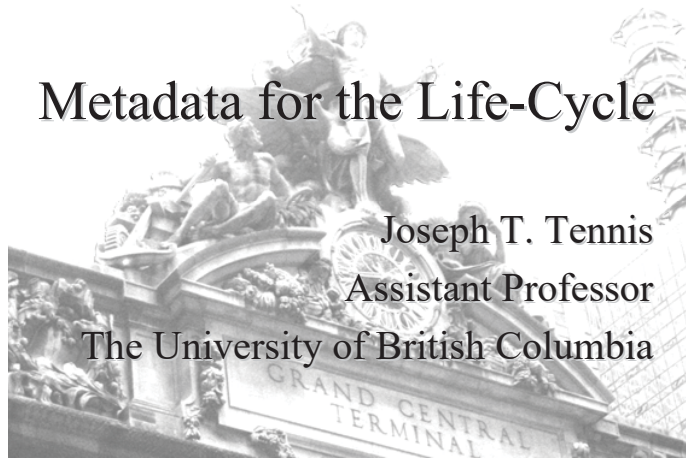


# Metadata for the Life-Cycle

Joseph T. Tennis  
Assistant Professor  
The University of British Columbia



## Outline

Definitions

Basis of this work

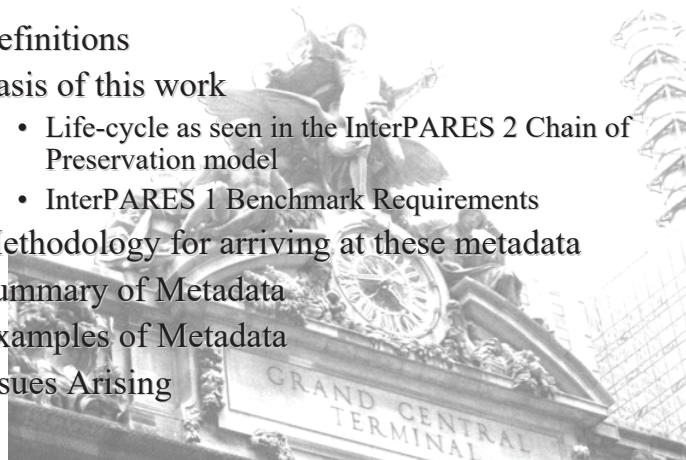
- Life-cycle as seen in the InterPARES 2 Chain of Preservation model
- InterPARES 1 Benchmark Requirements

Methodology for arriving at these metadata

Summary of Metadata

Examples of Metadata

Issues Arising



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## Basis of this work I

### Chain of Preservation Model



## Chain of Preservation

This work is based on a life-cycle conception of record creation, maintenance and preservation.

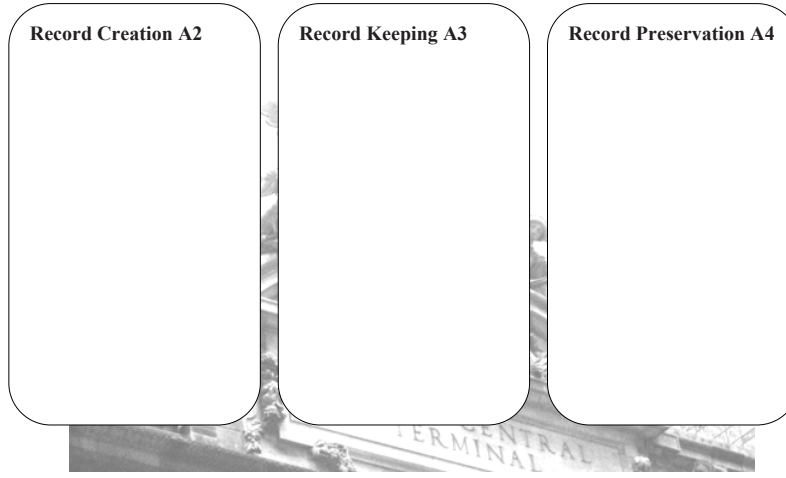
This represented in the Chain of Preservation Model outlined by Terry Eastwood yesterday.

Available at [www.interpares.org](http://www.interpares.org)

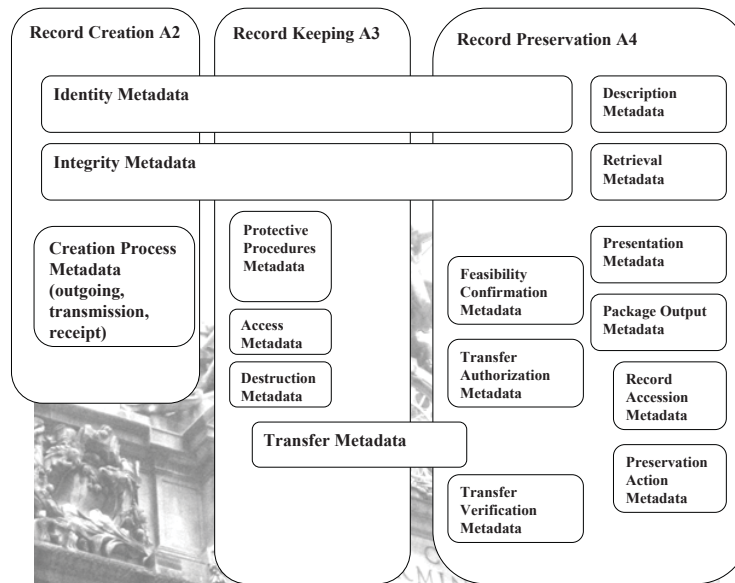


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# Chain of Preservation



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## Basis of this work II

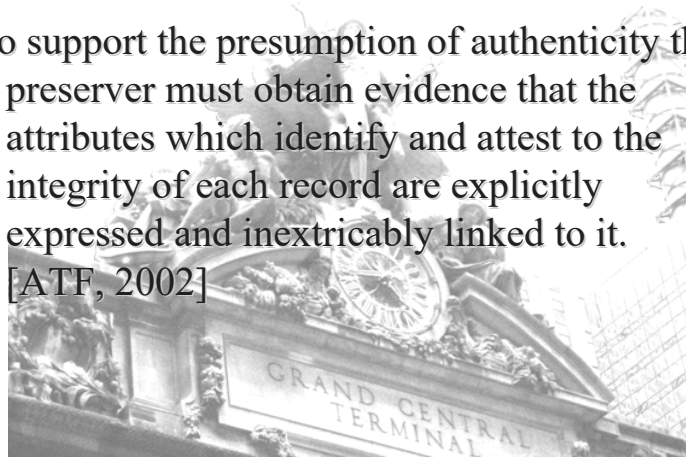
### InterPARES 1 Benchmark Requirements



## Benchmark Requirements

To support the presumption of authenticity the preserver must obtain evidence that the attributes which identify and attest to the integrity of each record are explicitly expressed and inextricably linked to it.

[ATF, 2002]

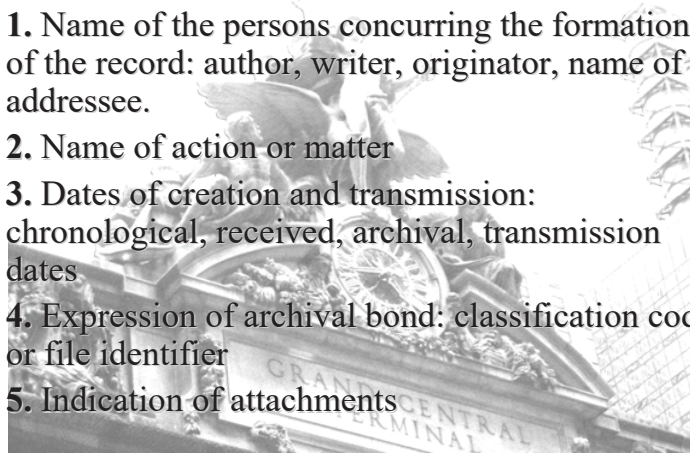


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# Benchmark Requirements

## Identity

1. Name of the persons concurring the formation of the record: author, writer, originator, name of addressee.
2. Name of action or matter
3. Dates of creation and transmission: chronological, received, archival, transmission dates
4. Expression of archival bond: classification code or file identifier
5. Indication of attachments

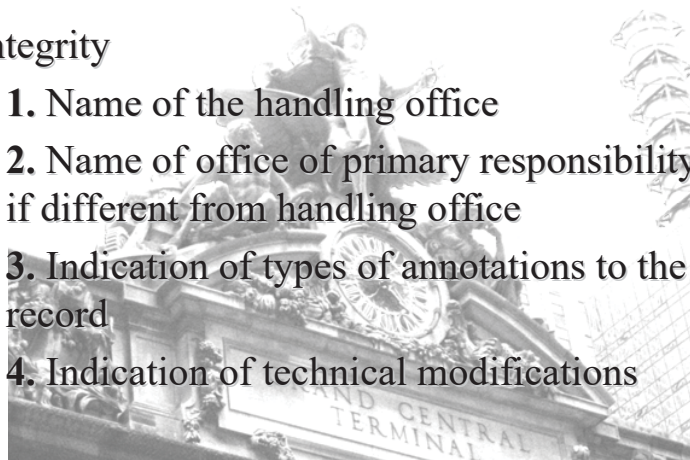


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# Benchmark Requirements

## Integrity

1. Name of the handling office
2. Name of office of primary responsibility - if different from handling office
3. Indication of types of annotations to the record
4. Indication of technical modifications



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## Methodology



## Methodology

Terry Eastwood, Randy Preston and I walked through the model, using the Benchmark requirements to ascertain where assertions about records must be recorded and what those assertions should be.

As such, it stands as a theoretical model of metadata, drawn from a particular viewpoint, awaiting validation.

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## Summary of Metadata



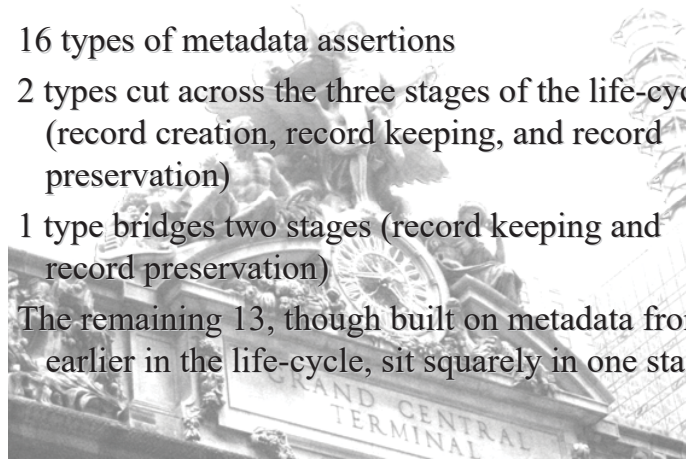
## Summary of Metadata

16 types of metadata assertions

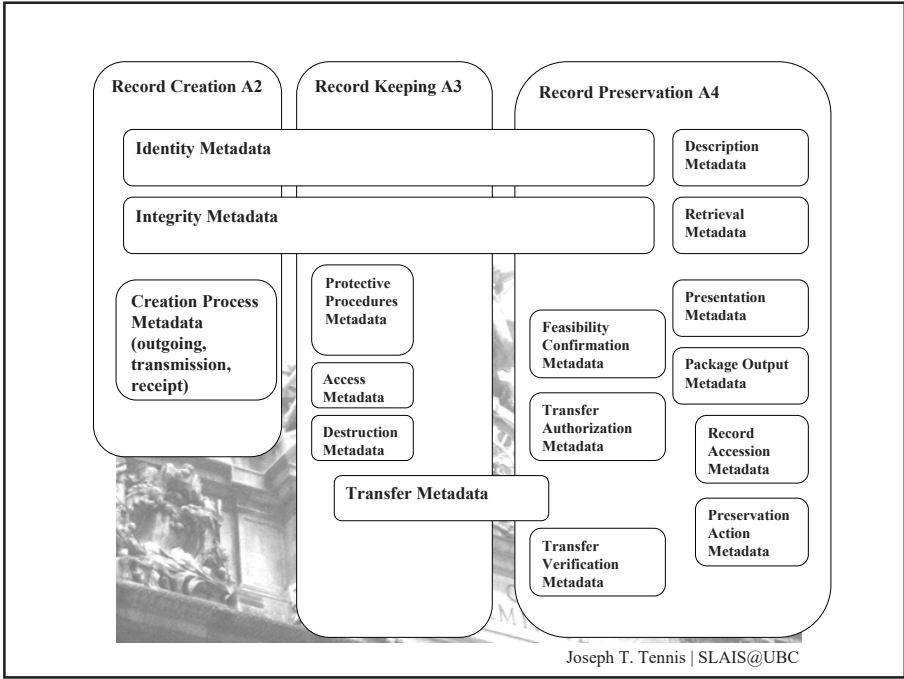
2 types cut across the three stages of the life-cycle  
(record creation, record keeping, and record  
preservation)

1 type bridges two stages (record keeping and  
record preservation)

The remaining 13, though built on metadata from  
earlier in the life-cycle, sit squarely in one stage



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# Chain of Preservation Metadata

Record Creation Metadata  
Record Keeping Metadata  
Record Preservation Metadata



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# Chain of Preservation Metadata

Record Creation Metadata

- Identity Metadata
- Integrity Metadata
- Creation Process Metadata



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# Chain of Preservation

## Record Keeping Metadata

- Protective Procedures Metadata
- Access Metadata
- Destruction Metadata
- Transfer Metadata

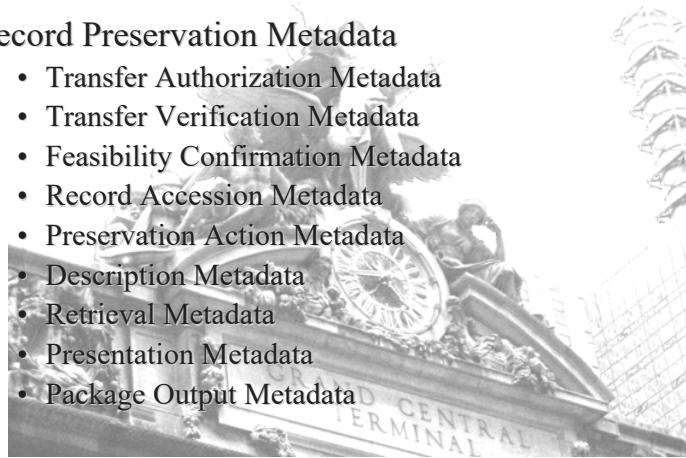


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# Chain of Preservation Metadata

## Record Preservation Metadata

- Transfer Authorization Metadata
- Transfer Verification Metadata
- Feasibility Confirmation Metadata
- Record Accession Metadata
- Preservation Action Metadata
- Description Metadata
- Retrieval Metadata
- Presentation Metadata
- Package Output Metadata



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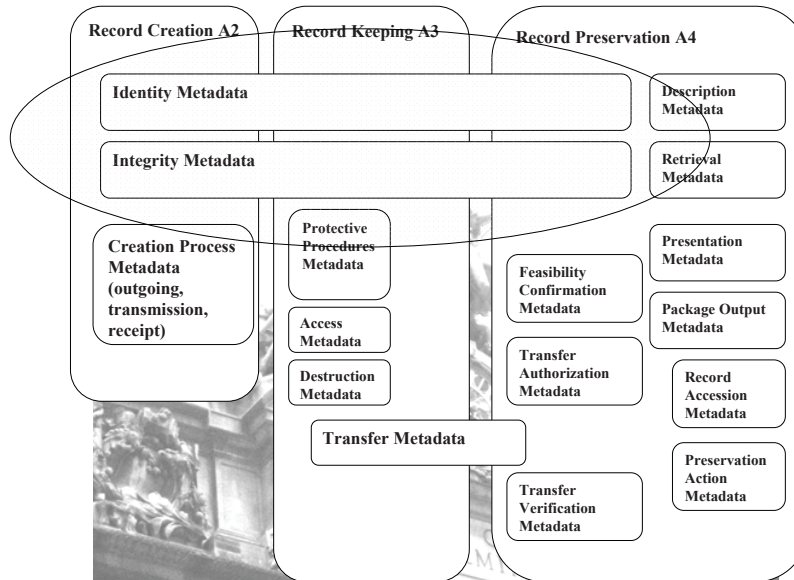
# Chain of Preservation Metadata

I will talk about:

- Identity Metadata
- Integrity Metadata
- Transfer Metadata
- Description Metadata



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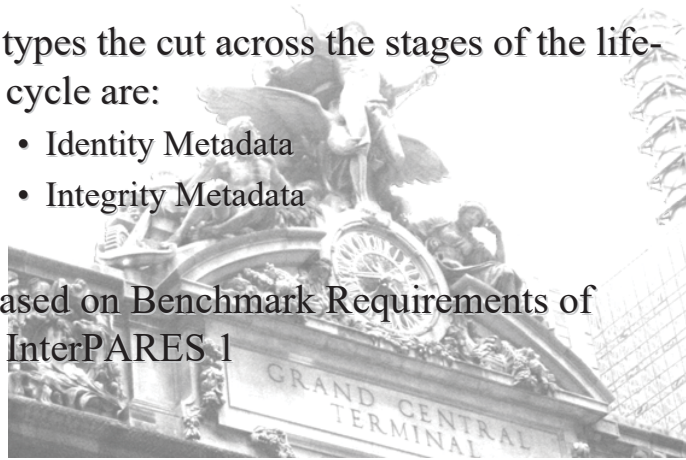
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# Chain of Preservation

2 types the cut across the stages of the life-cycle are:

- Identity Metadata
- Integrity Metadata

Based on Benchmark Requirements of InterPARES 1

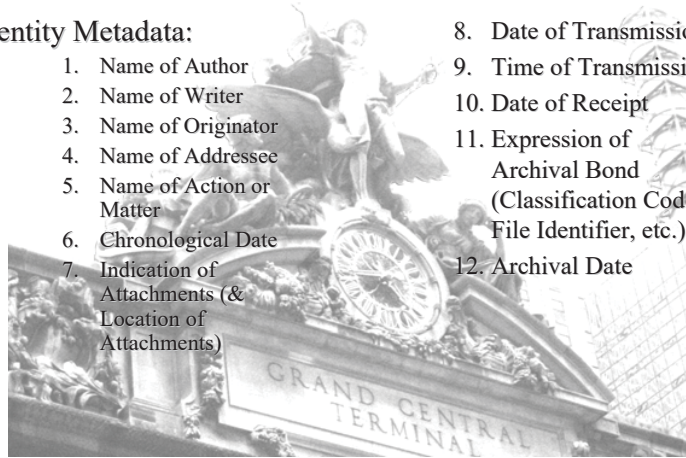


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# Chain of Preservation

Identity Metadata:

1. Name of Author
2. Name of Writer
3. Name of Originator
4. Name of Addressee
5. Name of Action or Matter
6. Chronological Date
7. Indication of Attachments (& Location of Attachments)
8. Date of Transmission
9. Time of Transmission
10. Date of Receipt
11. Expression of Archival Bond (Classification Code, File Identifier, etc.)
12. Archival Date

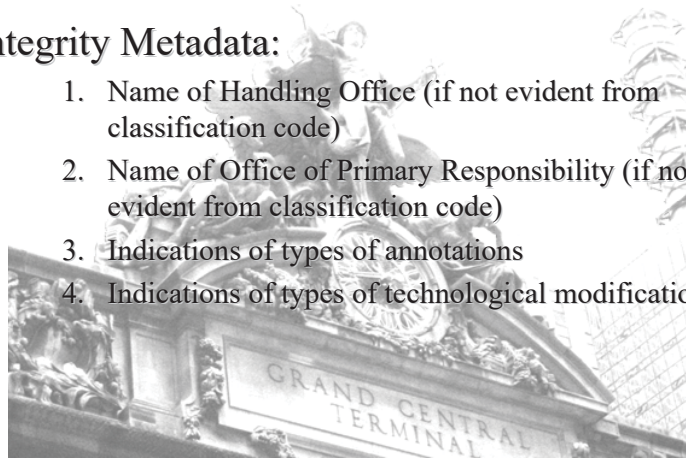


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# Chain of Preservation

## Integrity Metadata:

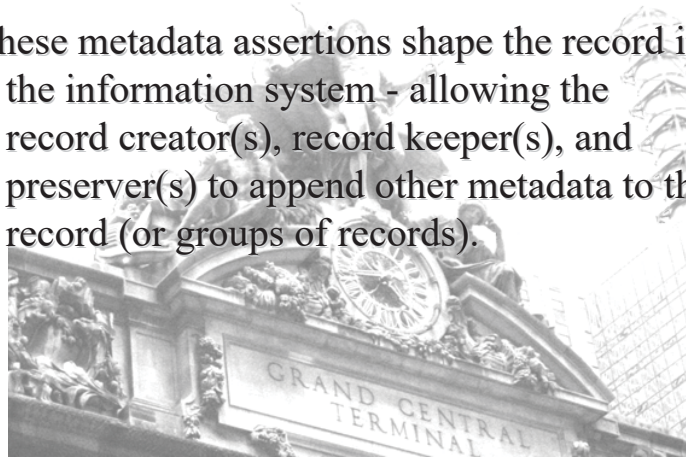
1. Name of Handling Office (if not evident from classification code)
2. Name of Office of Primary Responsibility (if not evident from classification code)
3. Indications of types of annotations
4. Indications of types of technological modifications



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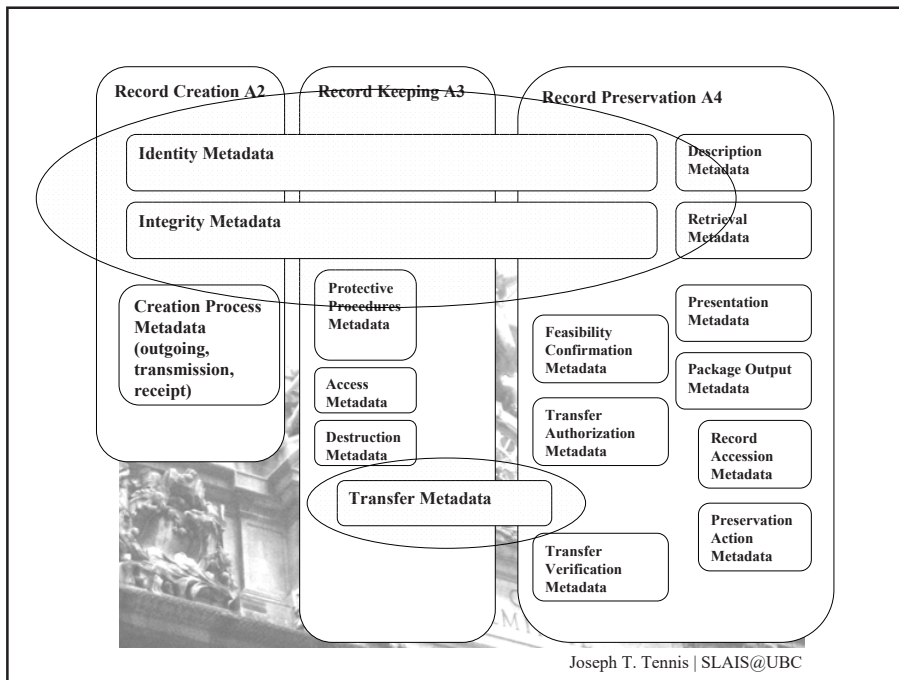
# Chain of Preservation

These metadata assertions shape the record in the information system - allowing the record creator(s), record keeper(s), and preserver(s) to append other metadata to the record (or groups of records).



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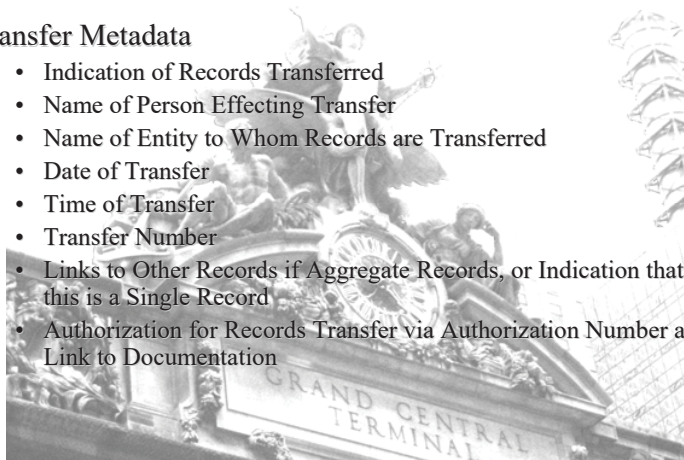




## Chain of Preservation Metadata

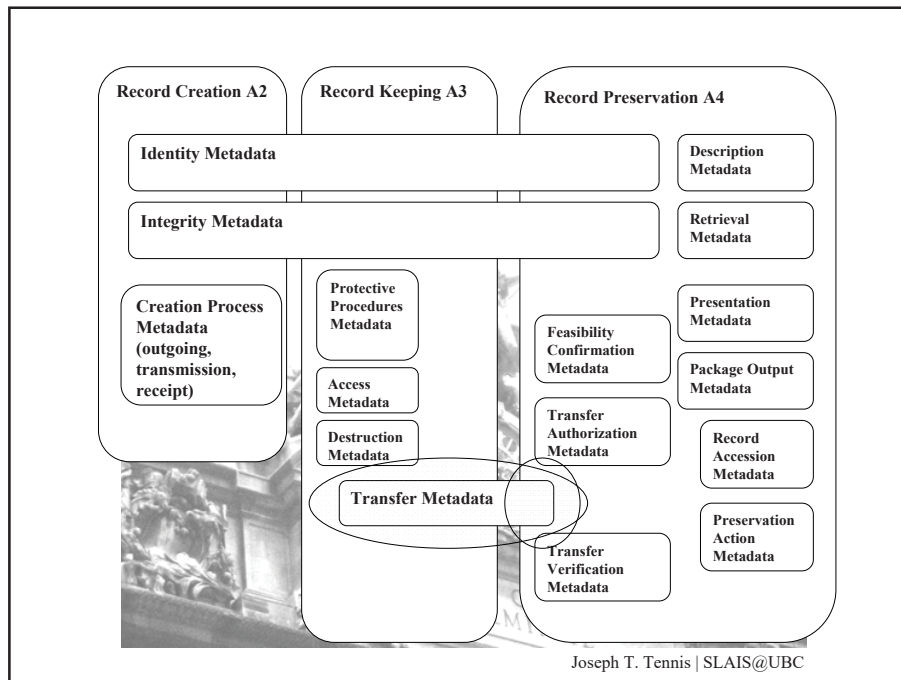
### Transfer Metadata

- Indication of Records Transferred
- Name of Person Effecting Transfer
- Name of Entity to Whom Records are Transferred
- Date of Transfer
- Time of Transfer
- Transfer Number
- Links to Other Records if Aggregate Records, or Indication that this is a Single Record
- Authorization for Records Transfer via Authorization Number and Link to Documentation



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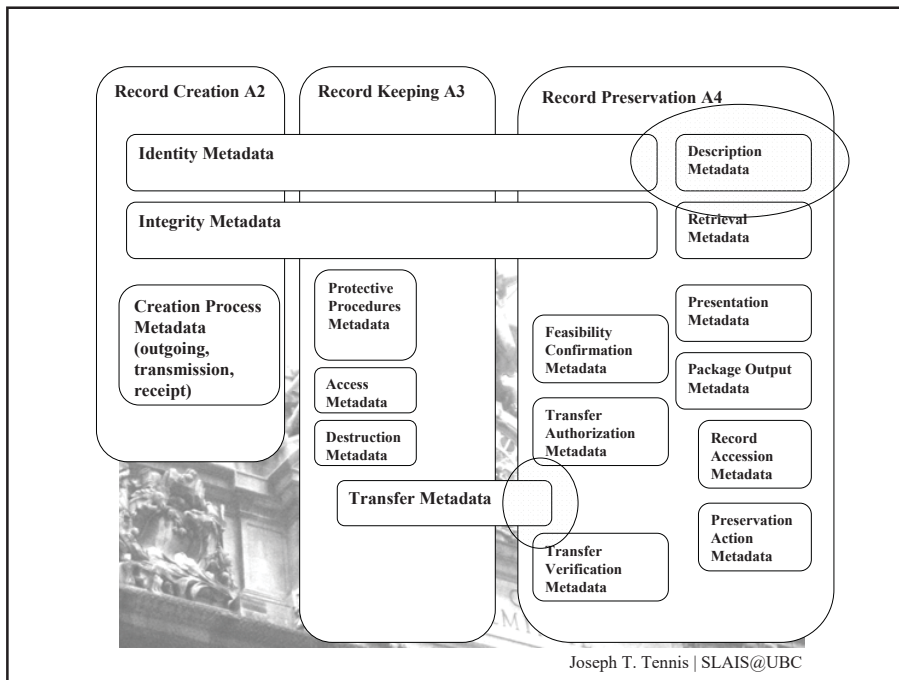


## Chain of Preservation Metadata

### Transfer Metadata

- Name of Persons Effecting Transfer
- Date Transfer Received
- Time Transfer Received
- Name of Person Registering Transfer
- Transfer Number (as Assigned by Person Transferring to Preserver)
- \* carried from Keeping to Preservation

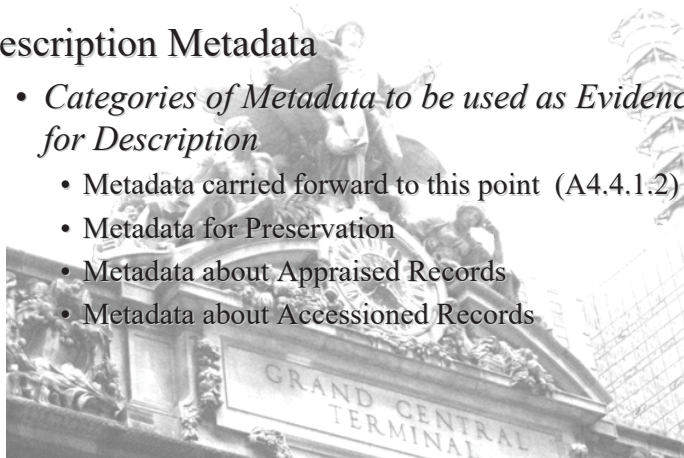
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## Chain of Preservation Metadata

### Description Metadata

- *Categories of Metadata to be used as Evidence for Description*
  - Metadata carried forward to this point (A4.4.1.2)
  - Metadata for Preservation
  - Metadata about Appraised Records
  - Metadata about Accessioned Records

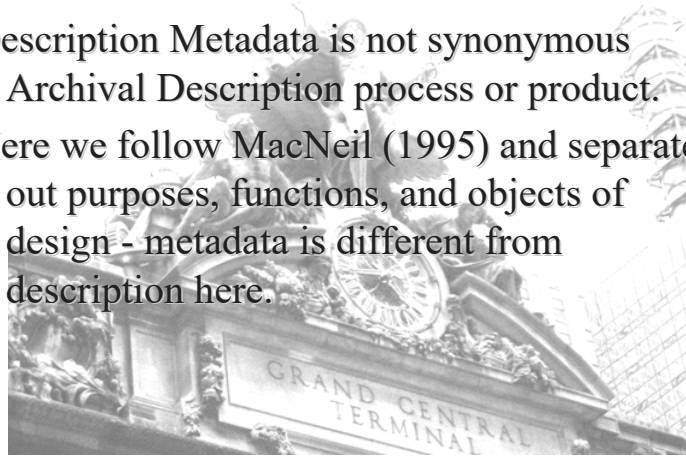


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## Chain of Preservation

Description Metadata is not synonymous  
Archival Description process or product.

Here we follow MacNeil (1995) and separate  
out purposes, functions, and objects of  
design - metadata is different from  
description here.



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## Chain of Preservation Metadata

Next Steps



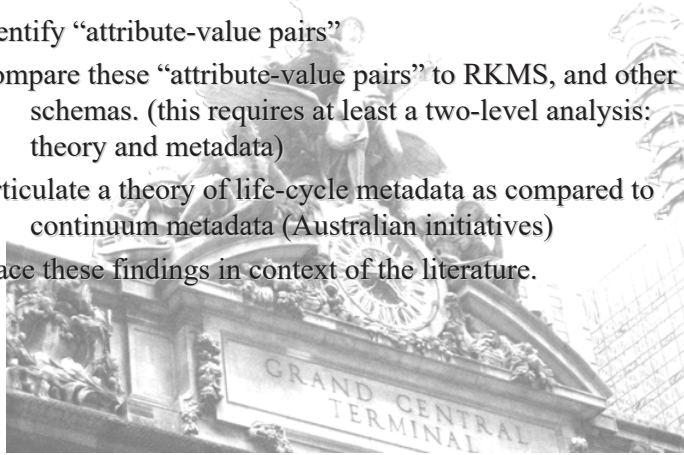
## Chain of Preservation Metadata

Identify “attribute-value pairs”

Compare these “attribute-value pairs” to RKMS, and other schemas. (this requires at least a two-level analysis: theory and metadata)

Articulate a theory of life-cycle metadata as compared to continuum metadata (Australian initiatives)

Place these findings in context of the literature.

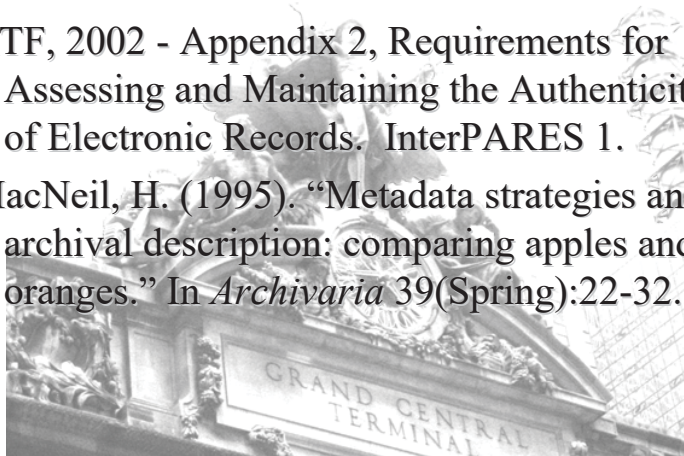


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## References

ATF, 2002 - Appendix 2, Requirements for Assessing and Maintaining the Authenticity of Electronic Records. InterPARES 1.

MacNeil, H. (1995). “Metadata strategies and archival description: comparing apples and oranges.” In *Archivaria* 39(Spring):22-32.



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